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Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	Continuation of 09/345,712
		Filing Date	January 18, 2001
		First Named Inventor	Jack L. Arbiser
		Group Art Unit	
Examiner Name		Attorney Docket Number	EU 98055 CON
Sheet	1	of	5

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
/		4,704,383		McNamara, et al.	11-03-1987	
/		4,900,815		Tanaka, et al.	02-13-1990	
/		4,925,833		McNamara, et al.	05-15-1990	
/		4,935,411		McNamara, et al.	06-19-1990	
/		4,975,422		Kanoh, et al.	12-04-1990	
/		5,290,807		Folkman, et al.	03-01-1994	
/		5,401,504		Das, et al.	03-28-1995	
/		5,576,330		Buzzetti, et al.	11-19-1996	
/		5,629,340		Kuwano, et al.	05-13-1997	
/		5,639,725		O'Reilly, et al.	06-17-1997	
/		5,654,312		Andrulis, Jr. et al.	08-05-1997	
/		5,670,493		Cordi, et al.	09-23-1997	
/		5,712,291		D'Amato	01-27-1998	
/		5,733,876		O'Reilly, et al.	03-31-1998	
/		5,861,415		Majeed et al.	01-19-1999	
/		5,891,924		Aggarwal	04-06-1999	
/		5,925,376		Heng	06-20-1999	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office. ³	Number ⁴	Kind Code ⁵ (if known)				
/		WO	95/18606	A1	Research Development Foundation	07-13-1995		
/		JP	10120558	A	Doctors Cosmetics YG	05-12-1998		

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K		ARBISER, et al., "Curcumin is an <i>in vivo</i> inhibitor of angiogenesis," <i>Molecular Medicine</i> 4(6):376-383 (1998).	
K		ARBISER, et al., "Oncogenic H-ras stimulates tumor angiogenesis by two distinct pathways," <i>Proc. Natl. Acad. Sci. U. S. A.</i> 94(3):861-6 (1997).	
K		BILLE, et al., "Subchronic oral toxicity of turmeric oleoresin in pigs," <i>Food Chem. Toxicol.</i> 23(11):967-73 (1985).	
K		CONNEY, et al., "Inhibitory effect of curcumin and some related dietary compounds on tumor promotion and arachidonic acid metabolism in mouse skin," <i>Adv. Enzyme Regul.</i> 31:385-96 (1991).	
K		ELAYAN, et al., "Long-term alteration in the central monoaminergic systems of the rat by 2,4,5-trihydroxyamphetamine but not by 2-hydroxy-4,5-methylenedioxymethamphetamine or 2-hydroxy-4,5-methylenedioxymethamphetamine," <i>Eur. J. Pharmacol.</i> 221(2-3):281-8 (1992).	
K		FOLKMAN, "Antiangiogenic gene therapy," <i>Proc. Natl. Acad. Sci. U. S. A.</i> 95(16):9064-6 (1998).	
K		FOLKMAN, "Diagnostic and therapeutic applications of angiogenesis research," <i>C. R. Acad. Sci. III.</i> 316(9):914-18 (1993).	
K		FOLKMAN, et al., "Long-term culture of capillary endothelial cells," <i>Proc. Natl. Acad. Sci. U. S. A.</i> 76(10):5217-21 (1979).	
K		GENETIC ENGINEERING NEWS, 18(17):1, 8, 34, 46 (1998).	
K		GOLUB, et al., "A non-antibacterial chemically-modified tetracycline inhibits mammalian collagenase activity," <i>J. Dent. Res.</i> 1987 Aug;66(8):1310-4.	

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K		GOLUB, et al., "Further evidence that tetracyclines inhibit collagenase activity in human crevicular fluid and from other mammalian sources," <i>J. Periodontal Res.</i> 20(1):12-23 (1985).	
K		GOLUB, et al., "Minocycline reduces gingival collagenolytic activity during diabetes. Preliminary observations and a proposed new mechanism of action," <i>J. Periodontal Res.</i> 18(5):516-26 (1983).	
K		GOLUB, et al., "Tetracyclines inhibit tissue collagenase activity. A new mechanism in the treatment of periodontal disease," <i>Periodontal Res.</i> 19(6):651-5 (1984).	
K		HONG & LIPPMAN, "Cancer chemoprevention," <i>J. Natl. Cancer Inst. Monogr.</i> (17):49-53 (1995).	
K		HUANG, et al., "Effect of dietary curcumin and ascorbyl palmitate on azoxymethanol-induced colonic epithelial cell proliferation and focal areas of dysplasia," <i>Cancer Lett.</i> 64(2):117-21 (1992).	
K		HUANG, et al., "Effects of curcumin, demethoxycurcumin, bisdemethoxycurcumin and tetrahydrocurcumin on 12-O-tetradecanoylphorbol-13-acetate-induced tumor promotion," <i>Carcinogenesis</i> 16(10):2493-7 (1995).	
K		HUANG, et al., "Suppression of c-Jun/AP-1 activation by an inhibitor of tumor promotion in mouse fibroblast cells," <i>Proc. Natl. Acad. Sci. U. S. A.</i> 88(12):5292-6 (1991).	
K		KELLOFF, et al., "Cancer Chemopreventive Agents: Drug Development Status II," <i>J. Cell. Biochem. Suppl.</i> 26:1-28 (1996)	
K		KENT, et al., "Requirement for protein kinase C activation in basic fibroblast growth factor-induced human endothelial cell proliferation," <i>Circ. Res.</i> 77(2):231-8 (1995).	
K		KENYON, et al., "A model of angiogenesis in the mouse cornea," <i>Invest. Ophthalmol. Vis. Sci.</i> 37(8):1625-32 (1996).	

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		KILPATRICK, et al., "Towards an RNA-based therapy for Marfan syndrome," <i>Mol. Med. Today</i> 4(9):376-81 (1998).	
		KOHL, et al., "Inhibition of farnesyltransferase induces regression of mammary and salivary carcinomas in ras transgenic mice," <i>Nat. Med.</i> 1(8):792-7 (1995).	
		KORUTLA, et al., "Inhibition of ligand-induced activation of epidermal growth factor receptor tyrosine phosphorylation by curcumin," <i>Carcinogenesis</i> 16(8):1741-5 (1995).	
		LARCHER, et al., "Up-regulation of vascular endothelial growth factor/vascular permeability factor in mouse skin carcinogenesis correlates with malignant progression state and activated H-ras expression levels," <i>Cancer Res.</i> 56(23):5391-6 (1996).	
		LU, et al., "Effect of curcumin on 12-O-tetradecanoylphorbol-13-acetate- and ultraviolet B light-induced expression of c-Jun and c-Fos in JB6 cells and in mouse epidermis," <i>Carcinogenesis</i> 15(10):2363-70 (1994).	
		MARTELL & BOOTHE, "The 6-deoxytetracyclines. VII. Alkylated aminotetracyclines possessing unique antibacterial activity," <i>J. Med. Chem.</i> 10(1):44-6 (1967).	
		O'BRIEN, et al. "Two mechanisms of basic fibroblast growth factor-induced angiogenesis in bladder cancer," <i>Cancer Res.</i> 57(1):136-40 (1997).	
		PROCHASKA, et al., "Rapid detection of inducers of enzymes that protect against carcinogens," <i>Proc. Natl. Acad. Sci. U. S. A.</i> 89(6):2394-8 (1992).	
		RAO, et al., "Anti-inflammatory activity of curcumin analogues," <i>Indian J. Med. Res.</i> 75:574-8 (1982).	
		RAO, et al., "Chemoprevention of colon carcinogenesis by dietary curcumin, a naturally occurring plant phenolic compound," <i>Cancer Res.</i> 55(2):259-66 (1995).	

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F		RAO, et al., "Inhibition by dietary curcumin of azoxymethane-induced ornithine decarboxylase, tyrosine protein kinase, arachidonic acid metabolism and aberrant crypt foci formation in the rat colon," <i>Carcinogenesis</i> 14(11):2219-25 (1993).	
F		SHING, et al., "Curcumin inhibits the proliferation and cell cycle progression of human umbilical vein endothelial cell," <i>Cancer Lett.</i> 107(1):109-15 (1996).	
F		SINGH, et al., "Activation of transcription factor NF-kappa B is suppressed by curcumin," <i>J. Biol. Chem.</i> 270(42):24995-5000 (1995).	
F		STONER, "Polyphenols as cancer chemopreventive agents," <i>J. Cell. Biochem. Suppl.</i> 22:169-80 (1995).	
F	X	THALLOOR, et al., "Inhibition of angiogenic differentiation of human umbilical vein endothelial cells by curcumin," <i>Cell Growth Differ.</i> 9:305-312 (1998).	
F		TORTORA, "Principles of Human Anatomy", 5 th ed., pp. 371-372, Harper & Row, N. Y. (1989).	
F		ZBINOVSKY, et al., <u>Analytical Profiles of Drug Substances</u> , Florey (ed.), pp. 323-339 (Academic Press, NY 1977)	

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